THE MARYLAND FARMER

—DEVOTED TO—

Agriculture, Horticulture, Live Stock and Rural Economy,

THE OLDEST AGRICULTURAL JOURNAL IN MARYLAND, AND FOR TEN YEARS THE ONLY ONE.

AND NEW FARM.

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THE NEW YEAR.

This is the season of good resolutions, and no better time to make them will ever arrive. Suppose we suggest a few which will be excellent now, and equally good if made and carried out at any period of the years to come.

Among the very best is a resolve to use every means of making the future better than the past; so that the land shall be more productive, the stock improved, the produce bring more profit, and the general experience of life bring greater happiness.

Not a few farmers think very litte in this direction. They keep on year after year in the old ways they learned in their youth. Even should they yearn for something different, they take no means to bring it about; but plod along in the same old way. They wonder then at their want of success. The world of farming has been moving forward and has gradually left them struggling in the rear. They have not read their farming magazine, and they are behind the times —far behind the times. They say they cannot afford a magazine, and in a single month lose perhaps fifty times its cost, simply because they did not have the intelligence it would have brought them.

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Resolve now that you will study into all the newer and better methods which will promise better returns for your labor. For example, if in making an extra quality of butter, two or three cents is made on each pound more than last year, it is twenty or thirty dollars on every thousand pounds to your advantage. If your cows average nine thousand pounds of milk this year because you have learned how to care for them better than last—when you got only 3000 as an average—you have actually secured three times the income from them by your added knowledge. It is the same in all other departments of your farm labor. If by changing your crops usually grown, for other crops, you can lighten your work and that of your family, while you greatly increase your

income, what a great work is achieved for you.

All these things come to you through the careful reading of some magazine devoted to your pursuit, which, by its advertisements, or by its reading, will bring to you these elements of progress and the needed knowledge to insure improvement.

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Resolve, also, that you will not throw all the fault for lack of success on someone else beside yourself. A great deal, we know, depends upon others; upon railroad tariff, upon hostile legislation, upon great corporations and their monopolies; but more depends upon your own dear self, and your indifference to the progress of the farmers as a class, and your neglect to join in those organizations which give influence and power which will enable you to remove the obstacles to your success.

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One more resolution should be made now, to be carried out during the year before you. Resolve, that the labors of wife and daughters in your home shall be made less burdensome. This is one of the most important resolutions you can take—the first step towards it being that your hired help shall not be boarded by you. The second step being that sufficient help shall be in the house as well as in the field.

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Resolve that you will look upon the bright side of everything which may take place, that you will not fret, that you will not be discouraged, that you will have a Happy New Year. Such a resolution adhered to will bring about the brightness and prosperity which belong to a Happy New Year. And they will belong of right to you.

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With this number we commence our twenty-fifth volume, and we have resolved that we will make it more independent, broader, and brighter, and more valuable than ever it has been in the past. For three years, now, we have been the active Editor of the MARYLAND FARMER, and we now acknowledge that every month teaches us new lessons, and that we are invited to become more comprehensive, fearless of consequences when we discuss great principles, and with a single eye to the best interests of farmers everywhere throughout our country. As we commence now our fourth year of Editorial work, we resolve that this work of ours shall be for the good of all; shall be governed by no cliques, no partizan interests, and shall be always exerted for the general welfare.

We have pointed out good resolutions for you and we have taken good resolutions for ourself. May they bring to all of us the HAPPIEST NEW YEAR we have ever enjoyed.

THE AGRICULTURAL DEPARTMENT.

It seems to be generally conceded that in the past the Agricultural Department of our Government has been turned from its proper functions and has been made an instrument for political influence, instead of a source of practical benefit for the farming community. How far this has been the case, however, it is impossible to tell; but no doubt political manœuverings are made use of in all departments of the Government as far as is possible, by the skilful wire-pullers of the political parties. It would be a miracle if the Department of Agriculture should escape.

So far as the purchase of seeds and their distribution are concerned, great fault has been found in the past. The object of this purchase of seeds, was to supply the best rare seeds to those who would give

them a fair trial and report the results to the Department. Upon these reports were to be founded the recommendations of the Department as to the future trials of those particular seeds. As it has been conducted for years past, it has been felt both by the farmers, and the purveyors of seeds generally, that the Agricultural Department has bought and distributed seeds without any regard to the quality or the desirability of the seed, and with no regard whatever as to the cleansing of the seed so as to prevent the introduction of weeds. While this has been the case with the seeds themselves, the mode of distribution has been highly objectionable, and those to whom they have been sent have felt under no obligation to use and report concerning them.

It has also been criticised that the Agricultural Department has spent its money in the printing of volumes of figures which are never examined nor read by the mass of farmers, and which are of no earthly value except to a very few theorists, who are far away from all practical application to the actual wants of farming. Also, that much has been spent in carrying out the pet schemes of individuals who have hoped to arrive at some beneficial results; but have only a smattering of agricultural knowledge and no actual agricultural experience to support them in their experiments.

Other and varied criticisms have been current, into the details of which we cannot enter now. They have been quite sufficient to awaken the question as to the advisability of having in the future an Agricultural Department; while some of the most influential of the political papers have begun a crusade against it.

Let us stop just here and ask one or two questions. Is there any other Department of our Government, that has made no mistake? Are all the other departments free from the use of politicians and never manipulated for political purposes? Is no money ever spent uselessly by the many inexperienced Statesmen who are given charge of important departments? Shall we begin to ask about our Consular experiences? or inquire into our indian expenditures?

And on the ground of some huge mistakes in the past, would it be best to abolish the Department of the Navy and Army? To do away with the Department of State, or the Interior Department? Is it not just as reasonable to commence a crusade against the Treasury Department or the Post Office Department, as against the Department of Agriculture?

Mistakes will come; the misappropriation of moneys will be sometimes made; politics will usurp the throne in all the departments at times; incompetence is not confined to any one of the departments. These facts should be remembered, and all criticisms should have no more weight against one than against another.

The farmers of our land need and should demand the Agricultural Department, and should by united action show that it must be properly regulated by Congress, to carry out the purposes originally intended by its establishment. It has no greater faults than any other department; but at present, it does not have back of it the millions of dollars to cover up its mistakes. It can be made as truly valuable as any possible creation by government and will influence for good the myriads of farmers, their lands and their homes, when given the power and the power is properly directed.

A strong argument against dehorning is, cattle deprived of their natural weapons of defence would be at the mercy of dogs even as sheep are at present. It is easy to answer: "Destroy the dogs."

For the Maryland Farmer.

THE TARIFF.

We are all more or less selfish and this selfish disposition crops out with uncommon strength whenever the subject of tariff is up for discussion. In fact, as soon as we go beyond the thought of the general good, that of the special class to which the individual belongs is naturally the object of greatest solicitude. The manufacturer very naturally asks the tariff to be laid in such a manner as will most benefit him in his peculiar industry. It is on this account that the tariff is urged upon all manufactures in which iron and steel are largely used; upon all cotton and woolen goods; in fact upon each department of industry which would come into competition with that which exists in our own country.

Manufacturers do not hesitate to urge upon Congress the value to them of a tariff, and make the plea broad enough to include not only their prosperity but that of the whole country as the result of such a tariff. We cannot stop to discuss this point; but only refer to it as a fact too well known to admit of contradiction. It shows the wisdom of those engaged in manufacturing that they have turned their labors practically to the protecting of their self-interests and mostly advocate that regardless of the welfare of the country at large. This is seen, for example, in the persistence with which the lumber manufacturers labor to keep the duties on lumber heavy enough to enable them to coin hundreds of thousands annually, although it is manifest that our country is being rapidly depleted of its valuable forests, the destruction of which would be greatly retarded if the country was thrown open to foreign lumber. The welfare of the country at large is sacrificed to that of certain classes; or, if not sacrificed, it is made only a secondary consideration. We take the lumber interests only as one of the many classes that have clamored until protected by heavy duties on manufactured articles.

All these classes have been more alive to self-interest than have the farmers and thus the farmers are now bearing all the burdens with but very little of the benefits. Taking the stand points of the other classes, what should the farmer ask as to the tariff?

The answer is, that all which he produces should be carefully protected by heavy duties, that he may not be forced to bring his produce to a market flooded by foreign commodities. That all he is forced to purchase be allowed to come into the country free of tariff duties, that he may be able to procure them at the very lowest possible expenditure of his hard earned money.

For example: Vessel load after vessel load of cabbages have come into the port of New York, till the price has been forced far below what the farmers would otherwise have realized. Again, Nova Scotia has sent vast quantities of potatoes, as she does every year, into the United States keeping the market low. Again, between 20 and 30,000,000 of dozens of eggs came into this country from abroad last year, keeping the market stocked in the season when our farmers should be able to realize royal prices for the produce of their poultry.

The farmers should take these and similar cases in hand and have the tariff so arranged as to remedy these evils under which they are laboring.

At the same time the farmers are forced to purchase a vast amount of manufactured implements, clothing, furniture, etc., and is it not clear that they should desire that all duties be stripped off from these until the strongest competition shall reduce the prices to the very smallest degree

of profit, and they be enabled to purchase cheaply?

It is thus that farmers should act in a well understood and definite manner on this subject. They are of right to be protected on everything they raise, and they are to seek relief from paying the burdensome taxes on what they are forced to buy and use. On this ground the tariff tax should be removed from all lumber, from all cotton and woolen goods, from all cutlery and all manufactured farm implements and machinery, from the hoe to the steam engine,

If farmers become properly organized they will thus be able to regulate their pursuits, so that the awful depression under which they have been struggling for some years past will be unknown in the future.

Why should they alone disregard their best interests, while every other class is clamoring for help, and is generally getting what they earnestly seek?

USE OF INSECT POISON,

During the winter is the time for the discussion of the subject, of the best way of ridding our crops of troublesome insects. We have felt opposed to the use of all arsenical compounds, and where any other insecticides can be had which will act with reasonable certainty we prefer them very decidedly.

We know that Prof. A. J. Cook has used his influence in favor of London Purple or Paris Green, and we clip a paragraph from one of his articles to the *Rural New Yorker*, to show how dangerous these things are, of which he is advocating the use:

"Either London-purple or Paris-green is effective. Repeated trials show little preference. As London-purple is the cheaper, is more easily mixed, and possibly a little less likely to blight the foilage if used too freely, I should recommend it. White arsenic I would never use. I think it about equal to the other arsenical compounds, but from its color, it is apt to be mistaken for soda, baking powder, or quinine, and so if left about by careless hands may by accident bring even death into the house. Such results are precluded by the color of either of the other substances. I would never handle these substances with the bare hands. Iron spoons are very cheap. Nor should they be used so that a dust or spray would be blown on to a person. A still day should be selected for spraying our orchards. We must also remember to use these poisons early—nearly as soon as the blossoms fall, as soon as the young fruit is as large as a pea. No one should be careless in handling them or in leaving them so that harm can result. It is wise not to turn stock into an orchard used for pasture for a few days after spraying the trees."

We have little doubt of the efficacy of these poisons, if eaten by the catterpillers or the insects; for they are equally certain to destroy the lives of animals or of human beings. Many accidents have occured to prove how dangerous they are; and the theory that arsenic disappears before the firuit is ready for consumption is a very doubtful theory; since arsenic is almost indestructible, and where a person has been killed by it the traces can be discovered years subsequent to the killing. In all cases of the destruction of insects, it has been demonstrated by actual experiments, by the Agricultural Department of our Government, that Pyrethrum is quite as efficacious as Arsenic, and that it does not endanger the life of animals or of man.

CONSTRUCTION OF ICE-HOUSES.

The season to secure ice is at hand, and if the farmers knew the great luxury as well as value of ice in summer, there would certainly be more ice-houses filled; but I have something to say about sawdust. My present house is the fifth one built in twenty years, and the only one that has given us any satisfaction.

The first was built of boards and studding, double, with a foot space for sawdust and a foundation of two feet of the same, thinking this would prove a good non-conductor. Long before the ice was needed it had melted away. Thinking the fault was in the ice, a ton of Maine ice was put in, and that seemed to melt as fast as it would in the sun—as well it might, for a thermometer hung against the wall indicated 100°.

The next one was built underground as far as I dared go to get drainage—about three feet. This was boarded up and filled round with sawdust several feet above the ground. The result was a little better than the first, but not much.

The third and most extensive one was constructed upon an entirely different plan. It was a double house, the inside 10 by 10 feet and the outside 13 by 13, leaving an air chamber of 1½ feet all around the sides and bottom, knowing that air was a poor conductor. This also proved a failure.

The fourth experiment proved the worst failure of all, but solved the problem of keeping ice. The air chamber was filled with sawdust, and the number of cart loads it took surprised me—abundance of it being within a mile or two. The ice was all gone before we reached our summer home, or a few days afterward. In one corner of the inside house, a square space of about a foot was boarded up to let down fresh meat, fish, &c. When the warm sun came along the ice melted rapidly and a thermometer lowered to the bottom of my meat chamber, surrounded by ice on two sides, indicated a temperature above the outside and explained the melting of the ice touching it, which soon gave an open space all around the ice, leaving the pile in the centre, and giving me a chance to watch the bottom where the melting took place. The space being wide enough to get down to the bottom, I found large cavities under the ice, and every few days the supporting columns would give way and down went the ice, and in a short time new caves would form and so the process went on. With the thermometer a foot from the ice, the temperature was higher than in the sun, and this put my thinking cap on. (I failed to mention that both sides of the chamber were covered with thick pasteboard.) This heat, I felt sure, did not come from the sun or outside air, as it was warmer than outside; hence the conclusion that the hydrogen of the sawdust was being oxidized into water, and there was a constant furnace near at hand to warm the air and have it absorbed by the ice, which would soon pass to water. This supposition was quickly proved upon tearing off some of the inside boards, when I found much of the sawdust had almost passed to carbon, and the heat produced had brought in the dry rot (slow oxidation) of the studding; some of these were almost worthless, and this in two years.

At this point my fifth house had a beginning and a successful one, but before describing it I must draw the reader's attention to one important fact, and that is the sensitive, mobile, ever-moving nature of air. The difference in weight of a cubic space of a temperature of 100°, and the same space at 39°, is about 15 per cent. — that is, the latter will weigh heavier—hence the constant disposition to sink as the air cools. The inside section of my fourth

ice-house was all removed, leaving the outside alone, giving me more space for the ice. The first three feet, 13 by 13, below the surface is of brick. The bottom being a sandy loam, water passed through rapidly, and also the cold air, which meeting the normal temperature of the earth, 50° to 60°, soon absorbed heat, returned to the ice and quickly melted it. This explains the caverns forming at the bottom, and this constant motion up and down melts the ice, as one degree above 32°, will do the business. On this loam a thick coating of cement was spread, tapering to a point where an ordinary water closet trap was placed, leading to a cemented trough in the dairy, making a water-holding bottom, which with the trap allowed the water to escape, but prevented the escape of the cool air. On the cement, upright studding was placed 3 by 4 with a casing of inch plank; as each plank was nailed on, a mixture of sand and cement was filled in all round and another plank put in place, and the filling went on, the space being about 10 inches. This space took much more cement than estimated for; my supply soon gave out, and a freeze coming on, I was compelled to fill the house, as we often have only one good freeze. The space above the cement was filled in with straw, and although the ice was very poor, we had abundance of it till the first of August, and are satisfied that had the job been finished with cement there would still be ice there, as the melting was very slow below the line of cement where there was no motion of air, and no caves were observed under the ice.—*Country Gentleman.* A. P. S.

Tree Peddling in Minnesota.

Under the law governing nursery agents the tree peddler must be furnished with a certificate that his employer has complied with the State law. He must also give the name, occupation and residence of his principal, and a statement as to where his nursery stock is grown, together with a bond in the sum of $2000, conditional to save harmless any citizen of the State who shall be defrauded by any false or fraudulent representations. Agents selling foreign nursery grown stock are also required to furnish the purchaser a duplicate order, with a contract specifying that such stock is true to name. The penalty for refusing to do these things is a fine of $25 or $100 and imprisonment for ten or sixty days.

PROTECTION FROM FIRES.

From the card issued by a New York bureau for protection of insurance companies against dangerous risks, the following rules are selected as applicable everywhere, and fit to post in every house:

"Don't allow stoves or heaters on your premises which are not securely set on stone, cemented brick, or metal, and be sure that all woodwork near the stoves or pipes is carefully protected with metal.

"Don't allow any loose jointed gas brackets on your premises which could be swung against woodwork, or any gas brackets without wire screens or globes, if hay, straw, light materials, or window curtains are near them.

"Don't allow electric lights or wires on your premises which are not properly protected.

"Don't allow steam pipes to be in contact with wood or other inflamable material.

"Don't allow any kerosene lamps to be filled after dark. Filling lamps near a fire is dangerous.

"Don't forget to keep the lamps filled and wicks in good order. When the oil is low it generates gas, which is likely to explode.

"Don't allow benzine, naphtha, gas-

oline, or explosives in your place. Your insurance policy prohibits it.

"Don't allow ashes to be put in a wooden box or barrel in your building. Always have an iron ash can.

"Don't allow any oily waste or rags to be thrown on the floor, but only in a metal can with cover, and have them taken out of the building every night; they are self-igniting.

"Don't allow sawdust to be used on floors or in spittoons. It causes many fires ignited by cigar stumps or cigarettes.

"Don't allow sawdust to be used for catching oil drippings from machines or elevator gearing. Sand is safe.

"Don't allow matches to be kept loose, or in paper boxes, but only in metal or earthen safes. Those lighting only on the box are safest.

"Don't allow smoking on your premises where any combustible goods or materials are used.

"Don't fail to have your fire buckets filled; and test hose and fire appliances from time to time.

"Don't allow your stairs or hallways to be blocked up or used for 'storage,' or rubbish, hay, straw, etc., to accumulate or remain on your premises.

"Don't forget that neglect and carelessness are the cause of more fires than all other things, and enforce rules to guard against them."

Drive Well Patent.

It is a matter of thankfulness that this patent has been declared invalid by the courts, and that the United States Supreme Court has sustained the decision. We do not in any case begrudge inventors a just recompense for their labor and genius; but this was a matter which had become so extensively used by wholly innocent parties, who had paid in full for their wells to those who built them, that it bore on its face a hardship.

We do not, however, feel that farmers should rest here; for the remedy for infringement in the patent laws covers too broad an application. Where a person buys a patented article and uses it; the maker of the article—not the purchaser—should be the responsible party. The buyer should serve as a witness; but being in very many cases, in almost every case, an innocent purchaser, he should not be the party harrassed and forced to pay. This subject should be agitated until the law is placed on a just basis.

ENSILAGE.

ITS ADVOCATES STILL FIRM IN THEIR FAITH.

In response to an inquiry from the editor of this paper as to the condition of the ensilage system in this vicinity, I would say that there are five farmers in Southbridge who have twelve silos, one in Sturbridge, and one—Mr. George Marsh—in Dudley, who has several. All have been in use from one to seven years. So far as my personal knowledge goes not one farmer who has made one could be induced to give it up. The last man to put one in was Mr. W. H. H. Cheney, of Southbridge. He told me a few days since that he had just opened one filled with clover rowen, which came out in splendid condition. Many who tried to dry their rowen this year had it out twelve days, during which time it almost spoiled, to say nothing of the considerable amount of time that had been spent on it. As I said before not one person of my acquaintance who now owns a silo could be induced to give it up. Mr. Clemence of this town has adopted this system and has more than doubled his stock in seven years, and has hay to sell; while with half the

stock he used to buy more or less. I can say the same. Last spring I put up a barn 30 x 25 feet and have filled both barns—my four silos, and have corn stored on top of the silos, not having any other place for storage. I shall certainly have the new barn full of hay for sale and keep twice the stock I did before I had the silos when I had to buy from one to two hundred dollars worth of hay. Perhaps saving the liquid manure has been one factor in increasing the production of my farm, but without that, if a farmer is able to keep twice the stock he has twice as much manure to put on it, and we all know that the last half is what makes the big crops.

As to the manner of feeding I do not know of any changes. I always feed after milking, and never have had any complaint from bad taste. Mr. Clemence and myself sell as good milk as any dealer around and have the best customers in the village. In this connection I might say that Mr. Clemence and myself have a small derrick and a box on wheels, which one man can handle. This saves much work and time in feeding ensilage.

Bran is so high that I am not feeding any this winter. My sweet corn was well matured and cut easy, so that I have a very rich fodder. After each feeding of ensilage the cows have all the dry hay they can eat, which takes the place of bran. I have been in the habit of planting yearly large southern corn near my barn where the carting would be slight, which this year bid fair to be larger than ever before, as on the first of August some of the stalks were over sixteen feet high. But soon after came a gale, which loosened the roots and blew down the corn, so that it did not grow much more. Further away from the barn I plant some sweet corn. This year it eared beautifully (two ears on many stalks,) and being on drier ground the roots held firmer during the gale, and it was not so badly blown down. I am inclined to think I got nearly as much in value as with the larger kinds. Mr. Clemence raises nothing but sweet corn, and thinks he makes up in quality what he lacks in quantity. I also had part of my field corn picked and put the stover in the silos. This is a very quick way of harvesting, and if the corn is not laid too thick it will dry well. If there is much rain take a fork and turn it over.—*N. E. Farmer.*

L. W. Curtis.

Globe Village, Mass.

All True.

If a man would eat, drink, die, and be forgotten, let his dwelling-place be in the city; if he would live, love and be remembered, let his habitation be in the country. In a great city man is alone, disjointed from man, and dependent upon himself, following the bent of his own appetites and passions. Tenants of the same roof know not the names even of each other, and, separated by party-walls, they are near neighbors no more than if they dwelt at the antipodes. It is only in the country that you have sympathetic society,—neighborhoods in which the neighbors are not separated by brick walls, nor by "line-fences" if they are kept up, but bound together by so many good and neighborly acts, and where love and pity will always be his portion in adversity, who acted with neighborly kindness in prosperity.—*N. E. Farmer.*

Arkansas as a Fruit-Growing State.

At the meeting of the American Pomological Society Arkansas received the most valuable award for the largest and best varieties of seedling apples ever exhibited in America. Also the first premium for the

largest and best display of standard apples from any part of the United States. The display of fruit at this meeting was considered the finest ever made.

PLACING STONES OVER ROOTS.

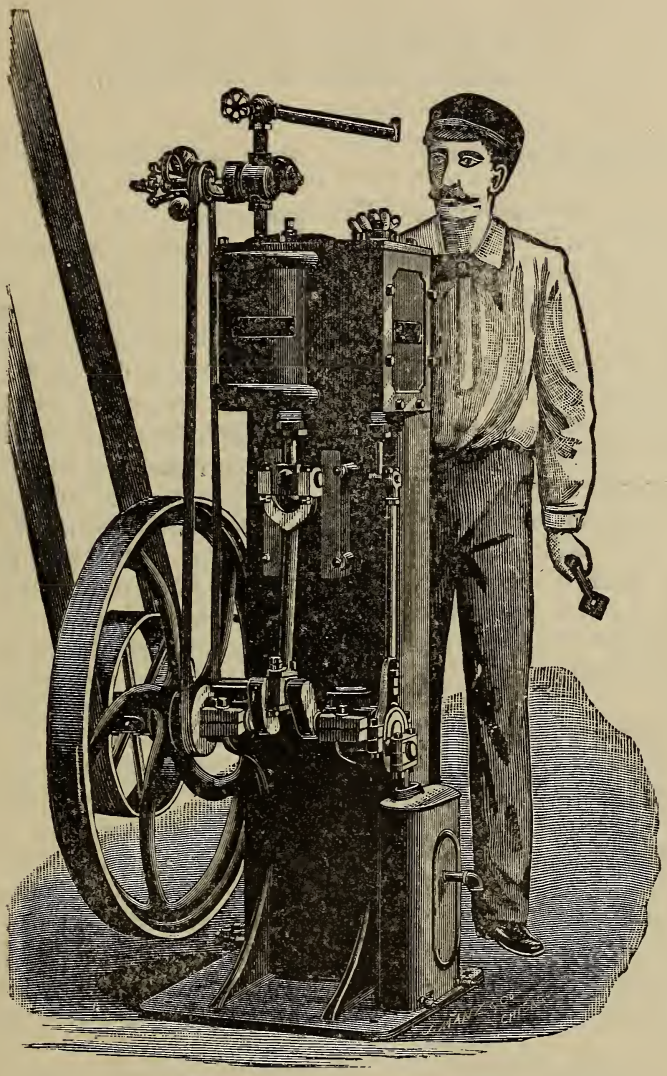
The weight of stones and their great power of conserving moisture render surface rupture impossible. Stone surfacings over roots also greatly multiply the number of the latter. This I have proved by numerous experiments. Some very striking experiments have been made on vine borders. Everyone familiar with the habits of vine roots is aware of their tendency to run down and bore deep rather than scatter themselves far and wide. It is said by some, place your richest soils or manures on the surface, and the roots will seek for and find them there. But this is not always the case. Weight the surface over the manure with bricks or stones or a heavy layer of concrete for a year or so, and the roots will rise and hug the under sides of the stones or hard surface. In numerous instances I have found this to be the case where heavy stones have been placed on transplanted trees or large shrubs, such as hollies and laurels, for the simple purpose at the time of holding the root masses and balls fast against the wind purchase brought to bear upon the tops. I have used stones of half a hundred weight for these purposes, and in moving them for use elsewhere in two years' time have never failed to find a complete network of roots underneath. So much did this come to be looked upon as a matter of course that a heap of good compost was kept in reserve to fill up the vacuum left by the stones. And these became the active centres of root force to most of the trees and shrubs. So certain have I become from large experience that the surface stones become active centres of rooting force that I confidently invite any one who is skeptical to make the experiment for himself. Finally, surface stoning leads to surface rooting. That this is a fact no one can doubt who has taken the trouble to test and demonstrate the matter for himself. But the why and the wherefore may be more difficult to explain. Doubtless, however, the moisture, the additional heat and augmented weight of pressure may all exert their quota of influence in raising and keeping the roots near to the surface. For the stones, or their equivalents in the form of bricks, old pieces of mortar, not only attract the roots to the surface, but keep them there. I remember a case in point of a vine border covered with bricks, with interstices of from one to two inches between the bricks; at the end of the second year a network of roots not only under-ran the bricks, but filled the interstices and began to climb up the sides of the bricks. They were then cleared off and a four-inch layer of compost, consisting of half manure and half maiden loam, substituted for them and to good advantage for the surface of the border was filled with vigorous roots for years after.—*London Garden.*

Put pure olive oil into a clear glass bottle with strips of sheet lead and expose it to the sun for two or three weeks, then pour off the clear oil, and the result is a lubricant which will neither gum nor corrode. It is used for watches and fine machinery of all kinds.

Fourteen years ago the first creamery was started in Iowa. Now that State has 495 creameries, 56 cheese factories and 1,000,000 cows, and makes for export 85,000,000 pounds of butter annually.

A NEW ENGINE.

Messrs. Chas. P. Willard & Co., 236 Randolph Street, Chicago, who have been for the past three years manufacturing the Davey Safety Engine, have placed upon the market a new form of motor of one, two and four-horse power, especially designed for school houses, court houses, office buildings or private residences, where a system of low presure steam heating is in use, for running machinery or circulating hot or cold air by means of a fan. This engine is an improvement on the Davey Motor, and, like it, does not require any steam pressure, taking its steam supply from a radiator or the exhaust of



a high pressure engine, or from any steam generator which will furnish steam at one pound pressure. Like the Davey, this motor is absolutely non-explosive, and safe; and possesses many new and preferable features.

Full particulars may be had by application to the manufacturers, as above.

LIVE-STOCK

SHELTER FOR STOCK.

The cold weather is now with us. The month of January is the most bitter of the year in this locality; and certain well established facts should be always borne in mind by us:

One is, that the consumption of food is greatly increased by cold, and cattle warmly sheltered will not consume anything like as much as those exposed. It is therefore both cruel and wasteful to neglect the common precaution of making your stock comfortable by providing them with warm quarters. Experiments have proven the fact that at least one-third more food is needed to keep exposed stock in the same condition as that of protected stock.

When we come to the dairy question in this regard, the want of warm quarters and comfortable shelter are more especially needed. It is impossible to retain a good flow of milk where the cows are standing in the cold, half perished, shivering and shrinking from exposure. The milk also becomes thin, blue, watery, and the butter which is produced from it cannot be made passable even though the best of color be added to it.

Neglect of comfort shows itself very plainly in both horses and cattle by the roughness of their coats, and general mournful appearance they exhibit. These also cast a reproach upon the farmer who owns them. A good, warm barn and ordinary care to keep out the piercing winds are all that are necessary to keep stock in good heart, healthy and profitable.

Sheep, also, are sufferers from the cold. It is impossible to make them hold their flesh well, or give a large clipping of wool, if they do not have suitable shelter and protection during the winter. It is indeed a matter to be regretted when the sheep are supposed to be so warmly clad by nature as to be neglected in winter. An open shed is generally supposed to be all that is necessary, with a passably dry footing. It is true that plenty of ventilation is needed; but we are greatly in favor of an enclosed shed, with plenty of good bedding, of straw or leaves; and that it be kept clean and sweet by not being neglected. Such care will bring them out all right in the spring.

The keeping of Stock upon our eastern farms is a necessity. We must have it. The fertilizer from a cow is in the ratio, compared with a horse, of 28 to 15—almost twice as much as a horse; and the pig gives one-fifth that of the horse, while a sheep gives not quite half as much as the pig. Cattle are thus a necessity, and the fertilizer of the wintered cattle, amounting to nearly a ton to each animal cannot be spared. Our farms depend upon it more and more every year. No one, however, has any right to reap the benefit of keeping cattle, unless he is willing and anxious to keep them comfortable, and will take the necessary steps to that end.

The farmer who can sit by his warm

fireside, or lie snugly in his comfortable bed, unmindful of the suffering of his stock, in unsheltered yards, or in barns through which the winter winds and piercing cold roam at will, is not worthy of having stock, and, if his losses are heavy and his gains are few, should have none of our sympathy.

For the Maryland Farmer.

COMMON STOCK—COWS.

We hear much about pure breeds and the papers generally give the idea that no other cows are of any value in comparison with these. It is a fact that for certain purposes some breeds have been cultivated to a very high condition, so that for butter and cheese and milk, or for beef, the respective breeds can readily be named.

For one, I have never doubted the fact that by a continued course of the most skilful treatment and the necessary continued selection, almost any quality can be brought into prominence—whether in cattle or flock. But this does not controvert the fact, in my mind, that the common every day cow may be brought into this same condition by judicious feeding and care.

It is on this account that I advise my farmer friends to pick out their best common stock cows; before spending very large sums of money in purchasing famous members of famous herds.

Take any promising cow, feed her properly, treat her tenderly, pet her and call her frequently by name, comb her and handle her freely, and you can make a prize cow of her. The actual increase in her produce will be wonderful indeed both as to quality and quantity.

I am not writing this to oppose pure bred cows; but they are facts which I state to encourage those farmers who do not feel able to expend large sums of money in these depressed times, for a very few animals. They can bring numbers of their herds up to that point where they will equal or surpass the very best registered stock.

The cow is an animal that likes especially to be treated in an affectionate and gentle manner and to such treatment she will respond promptly and to a remarkable degree. Her ear is attuned to sweet sounds and soothing, caressing words, and she appreciates all the kindness you can bestow upon her.

Pure bred cows are accustomed to all these things, while the common stock are left to take their chances. If the reverse of this was practiced for a short time it would soon appear that the common stock stood high and the pure bred stock was comparatively low in the most desirable points. Neglect will tell every time in failure of the stock; and on the other hand attention to its comfort will equally tell in its prosperity. E. M.

Shoe Horses Lightly.

"Let the shoe be as light and narrow wire as can be, and be consistent with the condition of the foot," said David Styles in a paper on the horse, read before a Massachusetts farmers' club. "If it is a black hoof that is hollow on the bottom, a very narrow, light shoe or none at all, as all such horses can go nearly all the year round without shoes. But if flat, the wire must be wider and the shoe thicker, but don't load the horse's feet with iron; with a two-pound shoe on each foot, the horse lifts nearly fifty-two tons in four hours' tread at sixty steps a minute.

"Our fathers were not so lavish of their iron, and now I would rather go back to their common sense mode of shoeing than of that practiced to-day, with hoofs filed up to the very corvovary band, thus de-

stroying the enamel given for protection. This kind looks nice and it is praised by too many. I like to see healthy shiney hoofs, and as strong as horn itself, and thus they will be either by going barefooted or shod as near as possible by nature's laws. Very few are properly shod. The best way is to throw the responsibility on the shoer, and if he fails quit him after a proper trial."

CHICAGO MEETINGS.

A series of Live-Stock meetings were held in Chicago during November, which show how great are the Stock interests in this annual gathering of owners and breeders of pure stock.

The American Percheron Association met on the 15th and elected Hon. T. W. Palmer, Detroit, Mich., President, and S. D. Thompson, of Wayne, Ills., Sec'y.

The French Coach Horse Breeders met on the 15th and appointed a committee to arrange for incorporation.

The Illinois State Short Horn Breeders met on the 15th and elected S. E. Prather of Springfield, President, and A. B. Hostetter, of Mt. Carroll, Secretary.

The American Aberdeen Angus Association also met on the 15th and received report of the Treasurer. Charles Gudgell, of Independence, Mo., is Secretary.

The Red Polled Cattle Club met on the 16th and chose Gen. L. F. Ross, of Iowa City, President, and J. C. Murray, Maquocota, Iowa, Secretary.

The American Short Horn Association met on the 16th and Hon. Emory Cobb was chosen President, and J. H. Pickrell, Secretary.

The French Draft Horse Association met on the 17th and elected Wm. Springer of Oskaloosa, Iowa, President, and C. E. Stubbs, of Fairfield, Iowa, Secretary.

The American Cotswold Association met on the 15th and elected E. B. Emory of Centreville, Md., President, and G. W. Harding of Waukesha, Wis., Sec'y.

The Illinois Veterinary Association met on the 15th and elected W. L. Williams of Bloomington, President, and S. S. Baker and Peter Quintman, Chicago, Secretaries.

The American Shropshire Association met on the 15th and elected S. H. Todd, Wakeman, Ohio, President, and Mortimer Levering, Lafayette, Ind., Secretary.

The Illinois State Wool-Growers met on the 15th and chose F. E. Day of Washburn, President, and W. C. Vandercook, of Cherry Valley, Secretary.

The National Swine Growers Association met on the 16th and elected D. L. Thomas, Rushville, Ind., President, and Philip M. Springer, Springfield, Ills., Secretary.

The Hereford Breeders organized with H. H. Clough, Elyria, Ohio, President, and Chas. Gudgell, Independence, Mo., Sec'y.

The National Poland China Swine Breeders Association, met on the 17th and elected H. M. Sisson, of Galesburg, Ill., President, and E. K. Morris of Indianapolis, Ind., Secretary.

The Duroc Jersey Swine Association, met on the 17th and elected G. W. Stoner of La Place, Ill.. President, and Chas. H. Holmes, of Grimmel, Iowa, Secretary.

Many other meetings of Stock breeders were held during the Fat Stock week and much interesting business transacted, and we particularly mention the breeders of Holstein Cattle which carried off the prizes for Butter at the Fat Stock exhibition.

TURKEYS were thirty cents a pound in California, at Thanksgiving time, hence their purchase was confined to the wealthy.

SHEEP AND DOGS.

The English lord advocate, in reply to a question propounded in Parliament, has decided that it is not lawful for a shepherd or farmer to shoot a dog found worrying or killing sheep. The owner of the dog can be held personally liable for the damage done, but those who suffer from its depredations have no other remedy.

Probably the same decision would be made in this country if the question were raised. It appears to be based upon the general principle that no man has a right to take the law into his own hands and redress his own wrongs.

It is well that the law of the case should be understood, as it shows the defenceless position in which flock-masters are placed, and appeals most loudly for the passage of laws which will defend their industry from the ravages of its terrible foes.

The personal liability of the owner of the predatory dog is really no remedy at all where it is possible to identify him; in nine cases out of ten he will be found to be as worthless as his dog. The cur and his master are often two links from the same sausage. But satisfactory identification of the owner of the dog is seldom possible. The shepherd cannot pursue the dog to his home, which is often distant, and he cannot be made out in the night. Practically, therefore, the flock-master is without remedy under the ordinary common-law provisions, and is left entirely to such special statutes as the several legislatures may enact.

The sheep industry is an important and useful one, the danger to which it is exposed is peculiar, and the legislatures should not be unwilling to enact special laws of the most stringent character for its protection.

The compensation of the owner from a public fund for the value of sheep killed is good as far as it goes, but there is a great deal of damage sustained by the flock which is not compensated for in this way and cannot be easily estimated, and such a remedy does not fully meet the evil. The flock-master does not want his sheep killed by dogs even if he is accorded their value from the treasury. If he had desired to convert them into money, he would have sent them to the butcher instead of waiting for the dogs. He needs them upon the farm, their presence is necessary to its business, their thrift is the measure of their profit, he does not wish to sell them at their simple value, and he cannot afford that they be chased and worried or maimed. So he is entitled to the additional protection of laws which encourage the destruction of such dogs as serve no useful purpose by their existence.

Dogs should be taxed to such an extent as to thin out those which the owners have no special care to preserve, and irresponsible persons who maintain dogs should be required to give bonds that their "pets" will "keep the peace." Then every flock-master should be privileged to shoot every dog, licensed or not, found prowling around his premises.—*Breeders' Gazette.*

Profits on Beef.

We have read recently some statements going the rounds of the press asserting that the average profit on each animal falls short of a dollar a head; and some stock Journals have been quite particular to give currency to such statements. It is impossible without the very best of data to arrive at any absolutely correct conclusion in the matter; but we can approximate it near enough to know the above to be wholly false. Taking the actual cost at current prices, the cost of slaughter, the freight on the beef from Chicago to New York or one of the Eastern cities, the cost of selling, and the

amount received after it is sold, and we can easily estimate the profit within a trifling limit. By this estimate it is shown that the range of profit is between $20 and $25 upon each animal. That the actual profit on a carload of beef approximates $800; but is rather more than that amount. It is not to be wondered at that butchers spend money freely and accumulate it rapidly, when profits are so great and losses comparatively small.

WATERING HORSES.

The veterinary editor of the North British Agriculturist says: The rational practice is to let horses have the opportunity of drinking sufficiently often to prevent their being very thirsty, and drinking to excess. In hot weather and during active exertion horses enjoy and are the better for a draught of water at intervals of three or four hours.

On their return from work they should have the opportunity of drinking, and unless abstinence has been protracted, or the animal much fatigued or overworked, or constitutionally washy and delicate, there is no need to restrict them.

Cold water does no harm except in very cold, wintry weather, when a proportion of hot water should be run into the horse troughs, or the water in buckets placed for several hours in the stable.

Refreshed by his drink, the horse will feed better than if he proceeds to his meal thirsty and languid. Postponing watering until after feeding has, moreover, the serious disadvantage of washing the recently swallowed, imperfectly digested food with abnormal rapidity onward through the intestines, thus checking digestion, giving rise to irregular fermentation and inducing colic and other ailments. Although he may advantageously have a few sips after feeding, a horse should not be allowed to gulp unlimited quantities of water, and indeed he does not care to do so if he has had his drink before his meal.

For horses, as well as for their masters, the best arrangement is to have water for use in reasonable amount at all times. This is secured in many stables, where a slowly filling through of about a gallon capacity is fixed in the manger and to this the horse turns at intervals with avidity before feeding, occasionally during mastication to assist the moistening of his dry food, and with dimished zest to wash his mouth on concluding his meal.

FARROW COWS.

It is common for farmers who have a number of cows to dry them off after eight or ten or at most twelve months of the greatest flow of milk has passed. This is good policy for those that are thus situated, as a cow giving only three to five or six quarts of milk daily is worth more to fatten than to keep for what milk she will give. But for a small family, where but little milk and butter is required, a good farrow cow may prove a desirable requisition. A really good cow may be milked two years or even three or four with proper management, and give nearly a constant mess during that time. It is the drain on the cow from the calf she is carrying that necessarily shortens the milking period, however good the feeding.

THE consumption of mutton is increasing in this country, especially in our large cities, and it has become profitable to supply this demand. It is profitable, first, because the price is remunerative, and secondly, because it is premotive of good husbandry, the improvement of the soil.

THE

MARYLAND FARMER

AND

NEW FARM.

A STANDARD MAGAZINE,

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THE NEW YEAR—VOL. XXV.

With this number the MARYLAND FARMER commences its twenty fifth year. As in the past it will be careful in its recommendations, and will be to the Farmers and their interests a steadfast friend.

In looking over the field for improvement it will express its honest convictions; but it will have open columns for others who may give freely their honest convictions also.

It will have as a partial "hobby" the advocacy of "advanced" agriculture, viz: Small farms and very high culture; the best seeds, the best fruits and the best methods of work; and with all this, the very best education for the farmer's family.

Another partial "hobby" will be, the advocacy of every method of work which will lighten the labors of farmer's wives and daughters. An "advanced" agriculture that will not better the condition of women on the farm, is a folly and a cheat.

The present Editor begins, with this volume, his fourth year of editorial work on the MARYLAND FARMER; and our readers can therefore be certain that they are at least having an old friend at the head of their favorite Journal.

The present Editor and proprietor, however, throws off with the old year all the complications of the past and begins a new and independent business with the new year. He has no axes to grind for anyone; he is under no obligations to use his columns for anyone's especial gain; his advertising pages are open to all who will pay, and will send him morally unobjectionable advertisements. With this understanding he solicits the patronage of all.

The Magazine is printed on fine paper and in the best style of the printer's art. Great care will be taken in the year to come to have it as handsome, typographically, as any agricultural journal in our

country. Such a work, gotten up in such style, with such varied contents from some of the very best writers in the country, at such a very low price, should have an almost universal patronage. Its circulation should be increased by hundreds in every county in our State, and where now it has hundreds in adjoining states, it should have thousands.

We invite now the hearty co-operation of our subscribers and readers to add to the usefulness of the Old Magazine :

1. By sending communications to us, with items of news, with new methods of work, with accounts of improved crops of grain, of vegetables, of fruits, &c.

2. By showing the magazine to your friends and speaking a good word in its behalf and thus adding to its subscription list. Every name gives additional strength to us.

3. By sending us "clubs" of subscribers. Those who do, will find us liberal beyond their utmost anticipations.

CONGRESS AND AGRICULTURE.

It is to be hoped that the commissioners, appointed in reference to agriculture during the present Congress, if there should chance to be such, be men connected with those branches of agriculture to be most affected by their action; that politics should not enter into the question of appointment; but their capability to carry forward the work for which they are chosen.

If the cattle industry is the one most affected, let the commissioners be men perfectly familiar with that industry—not mere political hacks who will fatten on their non-service—and let them have the work at heart for the general benefit of the country at large.

If the Forestry be the subject, let those appointed be men of mark who have studied into this subject and have the matter sincerely at heart. No merely political tyros can do the work which is needed to be done.

So in every other department of our agricultural work. Place-hunters, who are merely after lounging places, with fat salaries attached, can do us no good. The country has many strong men who can do the work needed to be done, and who can do it properly, with one-half the expenditure of time and money, which will be required by any political hangers-on to the party in power; who will either fail in accomplishing the needed work, or do it in a bungling slip-shod fashion, which in reality is little better than not doing it at all.

A CREAMERY.

We have rumors about the establishment of a creamery in Kent County. Also, the same in Anne Arundel County. We advise a thorough examination into the creamery business by those contemplating such movements, and we are sure they will be satisfied of the great good they will bring to those who will patronize them.

Those who are about to take the responsibility of building and equipping a creamery, should post themselves thoroughly in reference to the matter; for many a community has paid to speculators twice the actual cost of necessary buildings and machinery, from the lack of practical knowledge of details. Contractors always stand ready to make money out of these establishments; and it will pay those who intend to build to appoint a committee and send them to examine some creameries in active, successful operation.

In all sections of our State, creameries could be established successfully were it not for a mistaken idea of the great cost.

The Farmers are willing to pledge themselves to keep many more cows than at present, and to supply all the milk or cream which can be used to advantage; but they think this will take all the money they can spare and they cannot engage to subscribe to the capital stock of the creamery itself. In point of fact very little money would be necessary were it made a stock concern as is generally done in the West.

A $2000 creamery, divided into one hundred shares, to be collected as needed, is not burdensome upon any, and secures the permanent interest of those who have invested in it. On many accounts we are in favor of this co-operation in this business. Failures have sometimes occurred; but they have only been from wilful mismanagement, or from the lack of the co-operation of the farming communities where they were established. The stock feature is to a large extent an insurance against these things.

It is hardly necessary at this day to point out the many advantages to be derived from the establishment of creameries. They lighten the labor of the home; they supply a surer market for dairy products; they give a uniform quality to the butter; they bring better prices to the farmer; and all these things are sources of comfort and increased happiness.

Short-Horn Records.

The plan of the Chicago *Breeders Gazette*, for dropping inferior animals from the register seems to us a just and proper one: and while it is evidently greatly needed, the only difficulty would seem to be in placing the buying sum of money at the right figure. This should be done by a convention of Short-Horn Experts. The same will shortly be required also for the Holsteins and Jerseys, if the standard is to be kept high. From lack of this, the great breeds of former days have lost in good part their distinctive valuable qualities; very few of them being above grades of several removals from pure.

The President's Message.

The President's Message, devoted to the question of the Tariff, is and will be for some time to come the absorbing topic of thought and discussion. It is a straight forward document of remarkable clearness and precision proposing a tariff merely for the support of the government, and relieving all articles of necessity used by the great masses of our citizens from the burdensome taxes. Of course it is only a recommendation at present; but if not acted upon during the present congress will only intensify the discussion during the year to come.

SYNDICATES.

Under this name great dangers are threatening our country, and every department of life and trade are becoming controlled, to the great injury of the masses of consumers who compose the people.

This is not merely a name for a body of men dealing with railroads and telegraphs, gas companies and telephones; but it is the name which means capital to control and make scarce and high everything which is used by the masses in common life.

For example: A syndicate in France has bought the control of all the tin in in this little world of ours and has raised the price of it three hundred per cent. Another syndicate proposes to control all the bread stuffs on our small planet, until our pantry is as bare of flour as was

Mother Hubbards' when she went there for a bone.

Already syndicates talk of buying up all the cattle of this country and Europe and controlling the importation from South America, and placing beef beyond the reach of the moderately poor.

These are straws which show the tendencies of those who are banded together under this name. They may appear to handle things at present which affect but little the masses of poor people; but it is only because they have not yet laid their hands on certain departments of trade which are just as subject to them as is the Railroad or the Steamship traffic of the world.

We have on hand about 50 volumes of Pallisers Model Homes, one of the most desirable works for those who contemplate building or improving their present buildings. As long as they last we will send one to every subscriber who will send us $1.25 to pay for a years' subscription and postage on the book. It is a fine volume bound in cloth, and sells for $1.00. Those who wish a copy must write promptly.

Ohio will hold one hundred farmers' institutes the coming winter, and Wisconsin has arranged for eighty-two.

More than ten million eggs arrive in New York, each week. The chief supply is from Canada and Michigan. A single Canada train had thirty-one cars with 200,000 eggs in each.

Our correspondent from San Diego, Cal., sends us a few items: "Table butter is 45cts. a pound, milk from 10 cts. to 20 cts. a quart, and very scarce. Eggs 50 cts. to 60 cts. a doz, for fresh ones. Fruit is somewhat scarce also: Grapes 5 cts., 6 cts. and 8 cts. a pound, as we buy them to eat while fresh. Chickens are said to be hard to raise and are worth a dollar a piece."

A correspondent of the *Rural World* says no doubt that mutton can be popularized by producing the right kind, and the right kind must have weight and plenty of lean, juicy and tender meat, so that when one buys a joint he will get value for his money in something that he can eat not loaded with fat.

American Horticultural Society.

The meeting of this influential body will be held February 14, 1888, at Riverside, Cal. Riverside is situated in the South Eastern corner of San Bernardino County, a short distance below the junction of the Southern Pacific and Southern California railroads. It cantains by census of 1880, 1366 inhabitants, and is in a region of country which is full of interest to all classes, as well as to horticulturists. For particulars concerning Excursion rates, etc., address W. H. Ragan, Sec'y., Greencastle, Ind.

DEHORNING.

At the first thought this would appear both a cruel and useless practice; and when first brought to our attention, we could scarcely bring ourself to admit that it could be of any great advantage. We could not conceive how the dehorning could change a naturally ugly disposition to a mild one, and we have held ourself at peace, making examination of the various published items in reference to the subject. The following from the *North Dakota Farmer* would seem to set the matter fully at rest, however, and it becomes an additional help to the small farm on which the silo has enabled the owner to double

the amount of stock, had he barn room for its comfort. The dehorning gives him the necessary barn room, with no danger from the strong injuring the weak. But read the following:

My attention was especially attracted to an item in the November number, viz., "An Absurd Idea," on the dehorning craze, and I beg leave to protest against calling dehorning a craze. The opponents of dehorning have never, to my knowledge, advanced one good reason for their position, except the looks, and that I will concede if they please. I gave this subject careful consideration, and finally experimented to a limited extent on about twenty yearlings. The result was so satisfactory that this year I have dehorned every head of cattle on the place, calves, yearlings, steers, heifers, cows in milk, and dry cows in calf, and have not had any mishap in the whole one hundred and thirty-five head. The results are peace and quiet in the herd, as there are no bosses now, not a case of abortion from an ugly steer or cow getting a weak or timid cow into a corner and goring the calf out of her. They feed closer and herd easier; one-third more can come to the water trough at one time, and I notice particularly that the little fellows have no fear of the bigger ones, and force their way right up to either feed or water, and then again my colts are safe when turned out in the lot with the cattle. No sharp horns to ruin, may be, a good colt. And look at winter care: One barn I have for stock cattle holds twenty-eight head in stanchions; these I took out and put in a long rack instead, and now forty head are turned in loose and feed and rest comfortably and peacefully, and one man does the work in the same time as two when the cattle were stanchioned. In these times when labor and material for shelter often make the difference of profit and loss, do you wonder that I believe it is a move in the right direction and not a craze? It seems to me there is no room for argument versus dehorning. Humanity, comfort and economy are all in favor of "no horns."

GEO. M. RICHARDSON.

MISCELLANEOUS.

For the Maryland Farmer.

ENSILAGE.

HAS IT COME TO STAY? YES.

Dr. Sharp in December number of MARYLAND FARMER gives his opinion of ensilage and it agrees with mine up to about a year ago. Ensilage as first put up in this country was almost invariably sour, and although cattle would eat it, there seemed to be a strong suspicion among those who had not got the silo fever, that those who had would be glad to give up their solos, only they were ashamed to acknowledge that they had an elephant on their hands. Some in fact did give it up as they said the sour stuff affected the milk and butter injuriously. But in this country when a new thing is tried extensively, the whole truth of it is pretty sure to be discovered. And this has been the case with ensilage.

At first it was considered necessary to build stone silos well cemented; the ensilage was put in as rapidly as possible, tramped solid, covered tightly, and *very* heavily weighted. Result invariably sour ensilage. Soon there began to be talk

about sweet ensilage, and it was found that if the silo was filled slowly, tramped not too heavily and weighted lightly, the ensilage came out sweet. This sweet ensilage was found to be one of the best of foods for cows, and the milk and butter made from it was pronounced good and free from all bad taste and would keep as long as that made from any other food.

Another change has been made in growing the corn for the silo: At first it was sown broadcast or very thickly in drills, at the rate of two or three bushels per acre, and cut so green that the juice would flood the bottom of the silo. Now, corn planted thickly and cut before maturity is poor food and putting it in the silo did not add anything to its feeding value. In spite of all that was claimed for it—and the early siloists claimed the earth—immature corn unfit for feeding, as cut, was still more unfit after being fermented in the silo, and ensilage was on the road to anything but success. But corn planted thinly, so as to make a good sized ear to each stalk, say rows three feet apart and 8 to 10 inches in the row, put in the silo so as to give it time to heat up to 120 or 125° and then more added until the pit was gradually filled, then levelled off, covered with boards, lightly weighted, just enough to make it settle evenly, came out in winter smelling sweet, of a light brown color and a No. 1 food.

Another important discovery was that the expensive stone or brick silos were not necessary, but a wooden silo entirely above ground, and costing about $1. per ton for a silo of 200 tons or over was just as good if not better.

Dr. Sharp says: "To prevent its entire destruction (that is the ensilage) air must be excluded, and the mobile nature of it makes this no easy job." The latest theory on this subject is that dilute carbonic acid gas is formed in the ensilage and this gas being heavier than the air of course displaces the latter and therefore preserves the ensilage. Dr. Sharp has found organic acid in all samples, especially the one furnished by Mr. McShane. From this statement I judge that he has not seen a sample of ensilage from our mutual friend Mr. McShane's silos this year, as he, Mr. McS. told me lately that his ensilage this year was the sweetest he ever had and that his cows were doing better on it and making more butter per head than they ever did before. *He filled his silo slowly.*

Again quoting Dr. Sharp: "Possibly the samples I have seen may not be fair ones, but certainly they offered no tempting food for stock." I will now give a little of my own experience, which is limited. My silo being an experimental one and not wishing to go to much expense, I deepened a root cellar under my barn floor and dividing it into two pits, put my ensilage in by the slow, giving-it-time-to-heat method. I tramped the sides and corners *thoroughly* and thereby spoiled that part of the ensilage. On opening the silo after the lapse of two months I found the ensilage still hot, and where it was not tramped, sweet. The cows at first did not seem fond of it, but after a few days, ate it greedily. The spoiled ensilage I threw in the yard where I keep the horse manure, having put up a light fence to keep the cows from eating the manure. After the cows had been eating the ensilage for a few days they broke down the fence repeatedly to get at the refuse ensilage, which was both sour and mouldy.

The yield of milk and butter has increased and the consumption of nice, sweet clover and timothy hay has decreased. From my not very satisfactory experience in keeping ensilage I am encouraged to try it again and will not tramp it so much next time.

I think it a cheap, good, wholesome

food for cows, and if Dr. Sharp will try a small silo next year he will agree with me and the next year build a big silo.

A. L. CROSBY.

For the Maryland Farmer.

FOR FARMERS ONLY.

There is much which practical Farmers do know in regard to crops; but there *is* much which they do *not* think of, or seem not to *heed*, which they may be profitably reminded of, by old practical farmers.

The writer of this was born and raised a farmer in the State of New York; he later has owned and worked farms in three new States—Michigan, Illinois and Wisconsin—having tilled both prairie land and hill land, raising both small and coarse grains, as well as clover and root crops, on various soils.

He is therefore prepared to speak with some certainty as to the modes and necessities of such operations. And it has uniformly been found that more depends on the *mechanical* condition of the land, than upon its chemical ingredients—that is—the deep, fine, pulverized condition of land is more important than merely constituents of composition.

Deeply, finely plowed land, well pulverized, to allow air and moisture freely to circulate and also to permit the roots to spread and penetrate, will produce better crops and for greater number of years, than land not so prepared; such land suffers less in drought as the moisture can rise from below, while also excess of rain can pass off, in a wet time. Eight acres of land thus prepared will produce more crops, one year with another, for a period of ten years, than ten acres will only poorly plowed to a little depth.

Manures, lime, potash and the like, are useful and profitable; but even they will not do their best on land, that is but thinly plowed—will not give even half their value.

These are not new facts, and, perhaps, most farmers know them, but most farmers do not seem to realize or put them in practice: therefore this little article, by one who knows, is thrown out by way of a timely reminder. Less land well cultivated is the true policy, if well understood. Your friend, &c. D. S. C.

For the Maryland Farmer.

WIND MILLS AND THEIR VALUE.

Few persons have an idea of the power, night and day, that is passing over their homes even in a moderate wind. The great perfection that has been reached in constructing wind mills should prompt one who has much stock to water and who is depending upon a well to supply them, to examine into the merits of these mills. I have had one for some years to supply my barn and dwellings with water, and recently have had another 14 foot mill put up at the barn, which works finely in grinding corn, cutting fodder and hay, and sawing wood, with connections for pumping water, and is proving a valuable labor-saving machine. A moderate wind affords ample power, but so simple is its constructions, that by its regulating governors, ample protection is given against any sudden blow or storm. Having repeatedly watched the effect of a heavy blow, I can safely say there seems but little danger of any damage should it be caught in a flaw. No doubt all or most of them are equally protected and will do the work, but the two I have are the Adams Mill, manufactured by the Marseilles Mf'g. Co., of Illinois, who have an agent in Baltimore; and others may be found by examining your advertising columns.

My first one has been running several

years and has not cost me one cent except for a little oil occasionally, and with very little wind an ample supply of water is always on hand, for 20 to 30 head of stock. I have been surprised at the quantity of water needed for stock when being fed on dry fodder during the long winter nights. One of my rules is to have the trough in each stall filled with water at night, but every morning it is all gone, showing how important it is not to permit the animals to suffer for it when the dry fodder absorbs the water present. Stock well watered I find they are half fed; hence the importance of a full supply on hand at all times, especially when eating dry fodder, which all know has lost at least three-fourths of its weight in drying. In winter dry fodder is the principal food, therefore it will be seen winter is the time to provide water. My iron troughs hold about five gallons. The horses in taking a bite of hay soon learn to dip it in the water, and the same with dry chop or mill feed.

Any one having a stream or spring that could be made to flow to the barn will find that it will pay to have on hand at all times a supply of good water within reach of the stock; and in the absence of such a supply a wind mill is the best substitute for the purpose of keeping it convenient to the stock.

A. P. SHARP.

Rock Hall, Md.

A VALIANT FIGHT.

HOW ROCHESTER, N. Y., WRESTLED WITH THE TELEPHONE AND WON!

ROCHESTER, N. Y., is the only city in the United States which does not generally use the Bell telephone!

On the 20th of November, 1886, about seven hundred subscribers hung up their 'phones, and they have been hung up since! It is the most noteworthy fight with a corporation ever known.

The cause of it was the attempt of the local Bell company (whose officers all lived in another city) to exact a rate per message from the subscribers, instead of a "flat rate." The people resisted it, the courts sustained the position that the license was revokable at will, the Common Council revoked it. The company ignored this action, and, without permission, erected poles in the streets and strung additional wires; but the courts held that this was unlawful.

According to the message rate, a house like H. H. Warner & Co., proprietors of Warner's safe cure, who were among the heaviest patrons, would have to pay something like $1,000 a year for the same telephone service as before.

For a city of 125,000 people, Rochester has made a good many sensations. Sam Patch and his deadly leap, the Fox sisters' spiritual rappings, Seward's "Irrepressible conflict" speech, Susan B. Anthony's attempt to vote, the cometary discoveries of Dr. Swift, of Warner observatory, have each made the city the "talk of the world;" she leads in the manufacture of proprietary medicine, and her immense nursery, shoe and clothing interests puts her in the front rank.

The origin of one of her greatest industries is interesting: About ten years ago one of her foremost citizens was stricken down in the very height of a successful business career, with what his doctors said was an incurable disease. They gave him up to die. He then used what is now known as Warner's safe cure, and since then has developed as the world's great champion of the people against the assumed monopoly of physicians over the treatment of disease!

His fight, too, has been a determined one, and as successful as determined. To-day he is the head of the largest proprietary

medicine business in the world, having branch houses and laboratories in London, England; Toronto, Canada; Melbourne, Victoria; Sydney, New South Wales; Frankfort, Germany; Prague, Austria; Rangoon, Burmah.

Many foreign governments will not permit the manufacture and sale of proprietary medicines of any name or nature until their formulæ, value and harmlessness are by them established, after the most searching scientific inquiries. In every case Warner's safe cure has passed examination with the highest satisfaction to the government chemists and analysts, and the sought-for permission has been granted, which no other American has before secured.

This confirms the magnificent reputation given it by leading physicians, ministers, senators, congressmen, lawyers and ladies of the world. "Its secret of success," says the leading physician at Clifton Springs, N. Y., sanitarium, "is the simplicity of its compounds and the proportions in which they are compounded."

"How do the people get on?"

The universal verdict is: "We don't miss the 'phone, except to our profit!"

There has been practially no break in the united opposition begun last November.

The American is getting to be quite as tenacious of his personal rights as against conspiring monopolies as is the typical Englishman, and this Rochester telephone episode is a noteworthy illustration of the fact.

POULTRY.

THE POULTRY HOUSE.

From "A Most Wonderful Book on Poultry."
(COPYRIGHT.)

The best MATERIALS from which to construct a Poultry House are cheap, rough boards with straight edges. Fencing boards six inches wide and one inch thick are excellent.

Anyone can build a Poultry House with rough lumber, a saw, a hatchet and nails.

The Poultry House may extend across one end of the yard; the yard being twelve feet wide by twenty-five feet long.

Each Poultry House and yard should accommodate a flock of one cock and one dozen hens. This sized flock gives the best results.

The SIZE of the Poultry House should be about as follows: Eight feet high in front, six feet high on the back, six feet deep, twelve feet long. One half should be enclosed, the other half remaining as a shed.

Enter the enclosed room of the Poultry House by a door under the shed. Many reasons enforce this direction.

A Poultry House and shed for a flock of thirteen will take 400 feet of boards to complete the shed. COST $6.00.

NO FRAME will be required for a Poultry House for the best sized flock (13); the boards are nailed together in place.

Every Poultry House should have a window in front, facing South, from the floor up. This should be covered with wire in summer; with glass and a close shutter in winter.

The Poultry House should be banked up tightly to keep out the winter cold.

Also, line it with tarred paper held to sides and ceiling with lath.

The ground FLOOR of the Poultry House should be at least six inches higher than the ground outside, to keep it dry.

To VENTILATE a Poultry House, use a board chimney starting within one foot of the floor and passing through the roof, properly capped.

Be sure that wind, and rain, and snows do not penetrate the Poultry House through any LEAKS in roof or sides.

The land should SLOPE AWAY from the Poultry House sufficiently to carry away the water; it must not enter.

The best kind of a floor for a Poultry House is one made of CEMENT—three bushels each of lime, sand and gravel with one bushel of cement. It is hard, smooth and easily cleaned.

Where money is plentiful, expensive and FANCY houses for ornament are in order; but hens will lay no better in them than in the plainest or cheapest, if equally comfortable.

HOUSEHOLD.

IN THE CORN FIELD.

BY AMY RANDOLPH.

"I've half a mind to give up!" said Jotham Beers.

He was mowing the Old Home Lot on a broiling July day. From the first red streak of early dawn his glittering scythe had swung to and fro, with the steady regularity of a pendulum. There was nothing of the idler about Jotham Beers, and yet at times he did get discouraged.

"It don't seem as if I belonged to anybody," he muttered. "What's the use of working like this if I don't make up my mind to stay here? Deacon Beers is my uncle to be sure, but I am no more to him than any other hired man. The old farm is going to rack and ruin as fast as it can. Aunt Polly is a good soul, but she can't stem the tide of shiftlessness any more than you can dip out Niagara Falls with a quart bowl. And as for Rachel—"

He smiled to himself. It was evident that Rachel was the one redeeming element of the picture he had mentally drawn.

"As for Rachel," he went thoughtfully on, "she is like the wild red lilies on yonder hillside lot. There's a deal of solid common sense in Rachel, if only one could get through the strata of coquetry and girlish folly that overlies her true nature. I'll not go to Colorado. I'll stay on here for Rachel's sake."

Deacon Beers was dreaming over the weekly paper on the porch, when Jotham came in at noon. Aunt Polly was taking a cherry pie out of the oven. Rachel had gone out to the well for fresh water.

"Them crows is doin' a dreadful sight o' mischief in the corn," said Mr. Beers.

"Our folks used to hang up a square o' tin on a string" observed Aunt Polly. "When the sun flashed on't the crows was pretty sure to cut stick."

"I was wondering," said Jotham, as he dipped his curly head into a basin of water at the sink, and dried it on a towel, "if it wouldn't be a good notion to paster some sheep on the rocky side hill. There's nothing but mullin stalks and hard track grows there, anyhow."

"Sheep's a dretful resky investment," said Mr Beers, dubiously. "And the

neighbors all keeps dogs, and the fences are down."

Jotham had opened his lips to remonstrate on the dog and fence question, but the appearance of Rachel, dimpled and blooming as a freshly-gathered peach, diverted his thoughts, and he said:

"Well, Ray, are you going to the surprise party at the parsonage to-night?"

"I shouldn't wonder," Rachel answered.

"With me?"

"John Parker has asked permission to call for me," Miss Rachel replied with her eyes fixed on the pattern of the table-cloth, and a rising color in her cheek.

Jotham Beers said no more, but the pork and greens had lost all flavor to his palate. He cared no longer for his cherry pie.

"Rachel," he said in a choked voice, "I have known you longer than that Parker fellow."

Rachel reddened.

"One don't want to go about with one young man forever," said she. "And I'll thank you, Jotham Beers, to speak a little more respectfully of my friends."

"If he's going to dance attendance on you, I may as well remain at home," said Jotham.

"You can do as you please about that," retorted Rachel, tying and untying her apron strings.

Jotham went back to the hayfield in moody silence. The deacon lighted his pipe. "I guess," said he, "I'll sit and smoke a while."

Rachel began to clear away the table. Mrs. Beers eyed her with supreme indignation.

"Rachel," said she at last, "I should think you would be ashamed of yourself."

"Why?" a litttle defiantly.

"To treat Jotham so."

"To treat him how?"

"You know how as well as I do," declared Mrs. Beers. "And he's talking about leaving us, and going to Colorado. I'm sure I don't know what your father and me would do without Jotham. He's more like an own son than a nephew to me, and always has been."

Rachel was silent.

"And its for you to decide," went on Mrs. Beers, "whether he's to stay or to go."

The roses glowed more hotly in Rachel's cheek. A sort of mistiness filmed her soft hazel eyes.

"I'm sure I don't want him to g—go?" she faltered, hiding her head on her mother's shoulder.

"Tell him so, then," urged Mrs. Beers.

"Tell him that you'll go to the surprise party with him, instead of John Parker, John's only a hanger-on of Melinda Walfield's after all!"

So, when the dishes were washed, Rachel ran out to the hill to see where, in the lot, Jotham had got to.

"I'll take him a jug of cold ginger water," she thought. "It must be awful hot work mowing in the sun."

But he was not there at all. On the contrary, Rachel caught sight of his coarse straw hat above the tall spikes of the young corn.

"He's fixing that piece of tin to scare away the crows that mother told him about," said she to herself. "And I shall be saved the long walk to the home-lot."

She burst out into a sweet refrain of song, as she tripped along with the pitcher of cold ginger-water in her hand; she paused to pick a cluster of red lilies as she passed the orchard wall, where the tall blossoms crowded and nodded like children looking over the fence. "Because Jotham likes them," she thought.

"Jotham!" sweet and clear like the whistle of a thrush, sounded the fresh young voice, "*Jotham*, I say! Don't you hear me? Its Rachel! Why don't you look around, Jotham?"

There was no answer. No turning of the head, however slight, to indicate that

she was so much as noticed; and with a swelling bosom and tears starting to her eyes, Rachel flung the contents of the yellow pitcher into the nearest copse of hazel bushes, and ran back home like a deer.

"I won't be slighted by any man!" she said to herself. "No, I won't, I won't!"

She went to the surprise party that night with John Parker, and danced with him and flirted with him, to the manifest confusion of Melinda Walfield. And at three o'clock in the morning John Parker escorted her home, with Melinda—unwillingly fulfilling the old saw that "Two is a company; three is a crowd"—in the rear.

"Why, mother, *you* up?" was Rachel's exclamation, as she found Mrs. Beers in the kitchen lighting a fire by the uncertain glimmer of the early dawn. "Is any one sick? Has anything happened?"

Mrs. Beers shook her head.

"I'm going to give poor Jotham a bite of breakfast before he starts off," said she, in lachrymose accents.

"Starts off where?"

"For Colorado."

"Oh!" said Rachel, flinging her bonnet on the dressser, "he's going, is he? I wish him a pleasant journey, I'm sure."

At the same moment Jotham himself came down the narrow winding wooden stairway.

"You'll tell me good-bye, I suppose, Rachel?" said he, with an ostentatious assumption of being entirely at ease, which did not in the least deceive the two women. But she turned her head.

"I don't know why I should speak to you," said she. "You wouldn't answer me, when I called you yesterday."

He looked at her in surprise.

"I don't take more than one rebuff from any man," she went on excitedly.

"Ray!" he cried seizing both her hands in his, "what are you talking about? *I* refuse to answer you? *I* rebuff you? Child I think you have gone crazy."

The tears were flowing now, a sparkling flood.

"I—I went down to the field yesterday," she sobbed, "to carry you a cool drink—to ask you not to go to Colorado. I called 'Jotham!' again and again. And you would not answer me! You would not even turn your head!"

"Where was I Rachel?"

"In—in the cornfield! I saw your hat!"

His face brightened.

"Come here Ray—dear Ray," he said, in deep, earnest tones, as he took her hand, and led her to the window where the sunrise was unfurling its red banner to the world. "You saw my hat, did you? Well, you can see it now. Call to it, dear. It won't answer you. It is only the old braided straw, set on a pole among the green stalks, to frighten away the crows. My darling! my darling! don't turn away your face from me! And you could think that *I* showed a deaf ear to your calls! Dearest, I should hear them, I believe, if I lay six foot under ground, with the daisies growing over me. Shall I go on the five o'clock stage, sweetheart, or shall I stay!"

And Rachel whispered:

"Stay!"

Long ago the corn has been reaped and gathered, and bound into yellow shocks on the side hill. But the old hat still flutters aimlessly on its stake in the middle of the field.

"Don't take it away," says Rachel, who is sewing diligently on a bridal dress of white alpaca with loopings of creamy ribbons sprinkled all over it. "I like to sit here at the window and look at it. It teaches me a lesson—not to judge too hastily."

INTERESTING TO LADIES.

Our ladies can hardly fail to have their attention called this week to the latest combination of improvements in that most useful of all domestic implements, the "sewing machine."

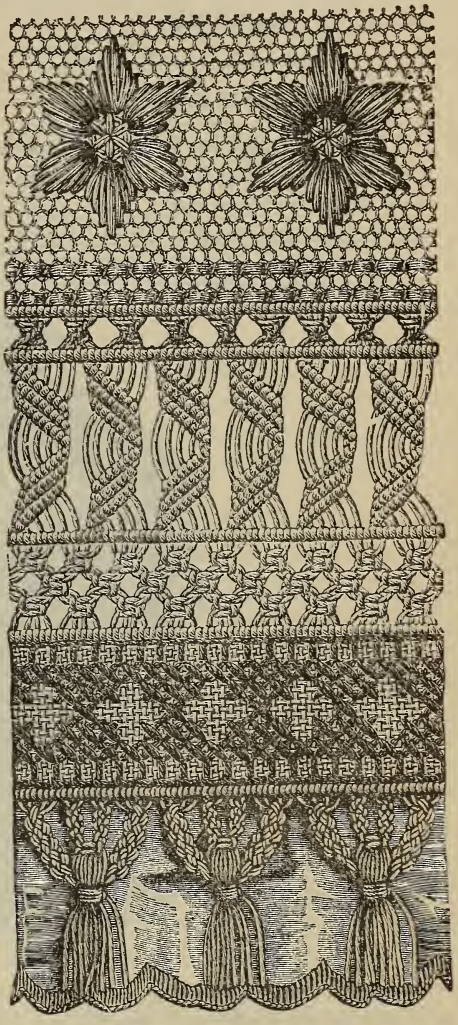
As we understand it, a machine for family use should meet first of all these requirements: It should be simple in its mechanism; it should run easily; it should do a wide range of work; it should be light, handsome, durable, and as cheap as is consistent with excellence throughout.

These conditions the "Light-Running New Home" certainly meets. It has also several very important and useful attachments and "notions" of its own, which go far to make good its claims to popular favor.

The "New Home" specially recommends itself to purchasers on account of its superior mechanical construction, ease of management and reasonable price. Over half a million have been sold in the last three years, all of which are giving universal satisfaction. This unrivalled machine is manufactured by the NEW HOME SEWING MACHINE CO., Orange Mass., and 30 Union Square, New York.

BORDER FOR ANTIMACASSAR.

Macrame and Embroidery.—This handsome border will form a pretty finish to antimacassars, etc., of embroidered net, satin, plush, or Java canvas. The upper stripe shown in the illustration is of mosquito net, embroidered with stars in long stitches with filoselle. The strands for macrame are knotted through the edge of the foundation instead over a leading bar; a row of double Solomon knots is next worked, then a leading bar is laid on, and the strands are knotted over it. The slanting bars are worked with six strands for each bar; another leading bar is laid on and the strands knotted over it, then a diamond pattern of two Solomon knots; a third leading bar is laid on, and the strands knotted over it; leave the strands unworked for one inch, place on another leading bar, and knot the strands over it. The fringe is formed by plaiting the strands together;

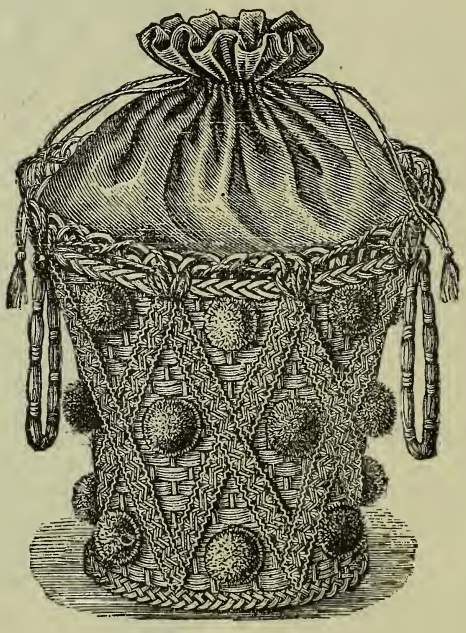


the two plaits in the center of scallop are made with three strands, the others with five; the ends are bound round with a needle and silk. Take a piece of satin two and a half inches in length, buttonhole it in scallops at one edge, sew this by the

other edge at the back of the fringe to the leading bar above the inch of plain strands; work a strip of congress canvas with silk in the cross-stitch pattern, and place it over the plain strands, sew it through the satin at both edges; this covers the plain strands, and the satin showing through the canvas has a pretty effect.

SCRAP BASKET.

The scrap basket has become as much an article of furnishing for library and sitting room as is the table itself. So elaborate and elegant are many of them, that they seem almost too good to use, and while we may admire at a distance these works of art, we prefer for use something which will not look shabby too soon, and in its decayed elegance be more forlorn than a less expensive and more durable basket in the beginning. Our illustration shows a handsome basket, substantially fitted up, and likely to stand pretty good service. As may be seen, it is a circular flaring basket of fancy straw (gilded) with bands of red and olive, sewn on crosswise to form a diamond pattern, and having balls of olive wool between the bands of felt. The basket is lined inside with red cashmere allowing the material to come above and form the bag, which is drawn up with cord and tassels of olive wool. The bands of felt are pinked on the edges and worked in the center with vandyked lines of olive silk and crewels. The olive bands worked in chain-stitch and point russe, with two shades of pink, and the red bands with two shades of bronze. The bands are then sewn into the basket, and the balls added. If a fuller trimming is desired, a double box plaiting of the felt, pinked on both edges and plaited through the middle are put round the top and bottom of the basket. This is a serviceable and handsome addition to the room.



KITCHEN WEIGHTS.

While the sizes of spoons, teacups and eggs vary much, so that exact weights cannot be depended upon in the following, it is near enough to answer all the purposes of cooking. It will take the place of scales, when the latter are not to be had.

Teaspoons vary in size, and the new ones hold about twice as much as an old-fashioned spoon of thirty years ago. A medium-sized tea-spoon contains about a dram.

Four teaspoons are equal to one tablespoon.

Ten common-sized eggs weigh one pound. Eight eggs of the improved breeds.

Soft butter the size of an egg weighs one ounce, when ten eggs weigh a pound.

One tablespoon (well rounded) of soft butter weighs one ounce.

Two teacups of soft butter well packed weigh one pound.

One quart of sifted flour (well heaped) is one pound.

One pint of best brown sugar weighs thirteen ounces.

Two and one-half teacups (level) of the best brown sugar weigh one pound.

One pint of coffee A sugar weighs twelve ounces.

Two teacups (well heaped) of coffee A sugar weigh one pound.

Two teacups (level) of granulated sugar weigh one pound.

One pint (heaped) of granulated sugar weighs fourteen ounces.

One and one-third pints of powdered sugar weigh one pound.

Two and three-fourths teacups (level) of powdered sugar weigh one pound.

Two tablespoons of powdered sugar or flour weigh one ounce.

One tablespoonful (well heaped) granulated, coffee A, or best brown sugar, equals one ounce.

One generous pint of liquid, or one pint of finely chopped meat packed solidly, weighs one pound.

BEFORE IT IS BORN.

SOME STARTLING STATEMENTS OF GENERAL INTEREST.

Dr. Oliver Wendell Holmes, on being asked when the training of a child should begin, replied, "A hundred years before it is born."

Are we to infer from this that this generation is responsible for the condition of the race a hundred years from now?

Is this wonderful generation the natural result of the proper diet and medicines of a hundred years ago?

It is conceded in other lands that most of the wonderful discoveries of the world in this century have come from this country. Our ancestors were reared in log cabins, and suffered hardships and trials.

But they lived and enjoyed health to a ripe old age. The women of those days would endure hardship without apparent fatigue that would startle those of the present age.

Why was it?

One of the proprietors of the popular remedy known as Warner's safe cure, has been faithfully investigating the cause, and has called to his aid scientists as well as medical men, impressing upon them the fact that there cannot be an effect without a cause. This investigation disclosed the fact that in the olden times simple remedies were administered, compounded of herbs and roots, which were gathered and stored in the lofts of the log cabins, and when sickness came on, these remedies

from nature's laboratory, were used with the best effects.

What were these remedies? What were they used for? After untiring and diligent search they have obtained the formulas so generally used for various disorders.

Now the question is, how will the olden time preparations affect the people of this age, who have been treated, under modern medical schools and codes, with poisonous and injurious drugs. This test has been carefully pursued, until they are conviced that the preparations they now call Warner's Log Cabin Remedies are what our much abused systems require.

Among them is what is known as Warner's Log Cabin Sarsaparilla, and they frankly announce that they do not consider the Sarsaparilla of so much value in itself as it is in the combination of the various ingredients which together work marvelously upon the system. They also have preparations for other diseases, such as "Warner's Log Cabin Cough and Consumption Remedy," "Log Cabin Hops and Buchu Remedy," "Warner's Log Cabin Scalpine" for the hair. They have great confidence that they have a cure for the common disease of catarrh, which they give the name of "Log Cabin Rose Cream." Also a "Log Cabin Plaster," which they are confident will supplant all others, and a Liver Pill, to be used separately or in connection with the other remedies.

We hope that the public will not be disappointed in these remedies but will reap a benefit from the investigations, and that the proprietors will not be embarrassed in their introduction by dealers trying to substitute remedies that have been so familiar to the shelves of our druggists. This line of remedies will be used instead of others. Insist upon your druggist getting them for you if he hasn't them yet in stock, and we feel confident that these new remedies will receive approbation at our readers' hands, as the founders have used every care in their preparation.

Books, Catalogues, Reports, &c.

THE Holstein Friesian Catalogue of Smiths, Powell & Lamb, of Syracuse, N. Y., for 1888, has come to hand. It is a volume of 268 pages, illustrated with beautiful engravings, and giving the surprising records of their herd, now numbering over 400 head. Those proposing to purchase this stock should not fail to send to them for their Catalogue and correspond with them about prices.

THE Millennial Dawn, Vol. 1. The Plan of the Ages, issued from Pittsburgh, Pa. It requires a thorough reading and we have been unable to give it.

FROM Michigan Agricultural College. Feeding experiments.

THE undeveloped South, by George B. Cowlam. Louisville, Ky.

Mansill's Almanac, 1888, from Richard Mansill, Rock Island, Ill. Price 25 cts. An elaborate exposition of a new system of science as to Planetary Meteorology.

LOUISIANA Department of Agriculture. Report for November, 1887.

DAKOTA Agricultural College. Forestry department.

REPORT U. S. Commissioner of Agriculture for 1887. We shall read it with interest.

University of Illinois, Bulletin No. 3. Soil moisture, by T. F. Hunt.

We have received an Elaborate Calendar from the Pope Manufacturing Co., the maker of the celebrated Columbus Bicycles and Tricycles, Boston, Mass.